# SUBJECT INDEX VOLUME X

Age, effects of, on triolein tolerance, 193

cause of atherosclerotic changes in Israel, 407 effect on T waves of vectorcardiogram, 507

American College of Cardiology

annual convention, 1963

abstracts of papers for, 312

announcement, 131, 312, 464, 620

program (1963) highlights, 905

scientific exhibits for, 770

International Circuit Course in Lisbon, Madrid, Israel and Turkey, announcement, 620, 770

obligation of membership, 618

postgraduate course physiology and biochemistry Dec. 4–6, 1962, 619

President's (1962) address, 309

President's Column, 145, 308, 464, 618, 903

scientific exhibit award 1962, 147

standing committees for 1962-63, 146

Woodian Logic, President's address 1962, 309

workshop programs

in New Orleans announced, 771

in Boston, 906

. Young Investigators' Awards

conditions announced for 1963, 313, 465, 621

deadline extended, 770

winners for 1962, 145

Amyloidosis, cardiac, review of, 460

Angiocardiogram in pulmonary stenosis, 634

Antimony dimercaptosuccinate toxicity, 829

Aorta

anatomic changes of, in Israel, 407

hyperplasia of ascending, with coronary hypertension, case report, 746

right descending and left aortic arch with left superior vena cava, 132

transposition of, with pulmonary artery both arising from left ventricle, case report, 601

Aortography, in patent ductus arteriosus with ventricular septal defect, 475

Arrhythmia

ectopic rhythm precipitated by isoproterenol in dogs, 242

result of antimony-treated schistosomiasis in China, 367

treatment with Rhythmol, 856

ventricular tachycardia, rapid, terminated by metaraminol, 579

Arteriosclerosis

in China, 367

in diabetics, geographic pathology of, in East Africa compared to United States, 390

Arteriosclerosis (continued)

in Japan, 371

Arteriosclerotic heart disease

in Italy, 341

Atherosclerosis

in Israel, changes in aorta due to aging rather than ethnic group, 407

levels of radioactivity of blood establish reliable index of, 807

Atherosclerotic heart disease

in Philippine hospital population, 362

in United States, 319

Auscultation

mediate, Laennec on, 859

A-V block

and asystole treated successfully by intracardiac pacemaker, 298

conversion to A-V dissociation by implanted pacemaker, 547

due to gumma of interventricular septum, 879

Wenckebach type, with long P-R interval, 458

A-V cana

common, electro- and vectorcardiographic changes after surgery for, 643

A-V conduction

concealed, 138

direct relation to atrial supply of septum, 447

A-V dissociation

digitalis-induced in dogs, 239

A-V nodal escape beats, ventricular aberration of, 217 with ventricular captures, experimental, in patients with 2:1 A-V block, 547

A-V nodal rhythm types after sinus node eliminated in dogs, 235

A-V orifice, combined, 291

Awards

Donald E. Gregg receives Distinguished Federal Civilian Service Award, 620

Ballistocardiograph Research Society meeting abstracts, 462

Beriberi heart disease in Japan, 371

Blood flow

coronary, increased by progressive hypoxemia in hypothyroid dog, 840

pulmonary, Galen on, 738

Blood pressure

diastolic. measured by palpation, 615

high, see Hypertension

index to development of hypertension, 416, 424

July (pp. 1–148); August (149–314); September (315–466); October (467–622); November (623–772); December (773–918).

# SUBJECT INDEX VOLUME X

Age, effects of, on triolein tolerance, 193

cause of atherosclerotic changes in Israel, 407 effect on T waves of vectorcardiogram, 507

American College of Cardiology

annual convention, 1963

abstracts of papers for, 312

announcement, 131, 312, 464, 620

program (1963) highlights, 905

scientific exhibits for, 770

International Circuit Course in Lisbon, Madrid, Israel and Turkey, announcement, 620, 770

obligation of membership, 618

postgraduate course physiology and biochemistry Dec. 4–6, 1962, 619

President's (1962) address, 309

President's Column, 145, 308, 464, 618, 903

scientific exhibit award 1962, 147

standing committees for 1962-63, 146

Woodian Logic, President's address 1962, 309

workshop programs

in New Orleans announced, 771

in Boston, 906

. Young Investigators' Awards

conditions announced for 1963, 313, 465, 621

deadline extended, 770

winners for 1962, 145

Amyloidosis, cardiac, review of, 460

Angiocardiogram in pulmonary stenosis, 634

Antimony dimercaptosuccinate toxicity, 829

Aorta

anatomic changes of, in Israel, 407

hyperplasia of ascending, with coronary hypertension, case report, 746

right descending and left aortic arch with left superior vena cava, 132

transposition of, with pulmonary artery both arising from left ventricle, case report, 601

Aortography, in patent ductus arteriosus with ventricular septal defect, 475

Arrhythmia

ectopic rhythm precipitated by isoproterenol in dogs, 242

result of antimony-treated schistosomiasis in China, 367

treatment with Rhythmol, 856

ventricular tachycardia, rapid, terminated by metaraminol, 579

Arteriosclerosis

in China, 367

in diabetics, geographic pathology of, in East Africa compared to United States, 390

Arteriosclerosis (continued)

in Japan, 371

Arteriosclerotic heart disease

in Italy, 341

Atherosclerosis

in Israel, changes in aorta due to aging rather than ethnic group, 407

levels of radioactivity of blood establish reliable index of, 807

Atherosclerotic heart disease

in Philippine hospital population, 362

in United States, 319

Auscultation

mediate, Laennec on, 859

A-V block

and asystole treated successfully by intracardiac pacemaker, 298

conversion to A-V dissociation by implanted pacemaker, 547

due to gumma of interventricular septum, 879

Wenckebach type, with long P-R interval, 458

A-V cana

common, electro- and vectorcardiographic changes after surgery for, 643

A-V conduction

concealed, 138

direct relation to atrial supply of septum, 447

A-V dissociation

digitalis-induced in dogs, 239

A-V nodal escape beats, ventricular aberration of, 217 with ventricular captures, experimental, in patients with 2:1 A-V block, 547

A-V nodal rhythm types after sinus node eliminated in dogs, 235

A-V orifice, combined, 291

Awards

Donald E. Gregg receives Distinguished Federal Civilian Service Award, 620

Ballistocardiograph Research Society meeting abstracts, 462

Beriberi heart disease in Japan, 371

Blood flow

coronary, increased by progressive hypoxemia in hypothyroid dog, 840

pulmonary, Galen on, 738

Blood pressure

diastolic. measured by palpation, 615

high, see Hypertension

index to development of hypertension, 416, 424

July (pp. 1–148); August (149–314); September (315–466); October (467–622); November (623–772); December (773–918). Book reviews

Congenital Heart Disease (Morse), 769

Differentiation Between Normal and Abnormal in Electrocardiography (Simonson), 306

Disturbances of Heart Rate, Rhythm and Conduction (Corday and Irving), 616

Handbook of Physiology Section 2. Circulation (Hamilton and Dow), 902

Heart Damage in Dogs Subjected to Hypothermia, With or Without Complicating Cardiac Operations (Sarajas), 617

Heart Disease and the Law (McNiece), 616 Klinische Elektrokardiographie (Holzman), 143

Some Aspects of Obliterative Vascular Disease of the Lower Limb (Gillespie and Douglas), 144

Taschenbuch der Digitalistherapie (Niedner), 306

The Pluricausal Cardiopathies (Selye), 306

Varicose Veins (Foote), 306

Vecto: Electrocardiography (Uhley), 902

You and Your Doctor. The Common Sense Guide to Medical Care (Potter), 902

Buerger's disease in Japan, 371

Bundle branch block

induced, in WPW syndrome, 650

left, effect of on activation of left ventricle, 101

left intermittent, hemodynamic changes shown by left heart catheterization, 792

WPW syndrome with, 657

Cardiac arrest

closed chest, as adjunct to external defibrillation for, 120, 128

pneumatic pump, portable, for external cardiac massage during, 107

Cardiac catheterization

by antethoracic pancardiocentesis, 74

by percutaneous puncture, 80

by simultaneous sampling of left ventricle and left atrium, 62

by triple-platinum hydrogen electrode, 70

data in case of muscular dystrophy, 890

fibrillation during, treated by closed chest massage and external defibrillation, 120

left heart, in mitral disease, 57

left-sided, in bundle branch block, 792

left ventricular and atrial sampling to estimate mitral regurgitation, 62

mitral stenosis, pathophysiology of, revealed by, 773 right heart, coronary occlusion produced by, 110

Cardiac massage, closed chest, as adjunct to external defibrillation, 120, 128

Cardiac murmurs, classification of, in children, 141

Cardiac resuscitation

closed chest, results in hospital, 554

hemodynamic effects of open and closed chest, in dogs, normal and with myocardial infarction, 555 Cardiac resuscitation (continued)

open chest, following myocardial infarction, 124

Cardiovascular disease

in Civil War recruits (1863), 583

in Italy, morbidity of, 341

in the United States, 319

symposium on epidemiology of, 315-389

Catecholamines, blood concentration and hemodynamic effects in normal and labile hypertensive patients,

Cerebral vascular disease in Japan, 371

Cholesterol factor in myocardial infarction among diabetics in United States and East Africa, 390

Cigarette smoking, fatty acids increased by, in patients with healed myocardial infarction, 204

Circulation

extracorporeal support in cardiac disease, 149

hyperkinesis syndrome of, 785

Coarctation of aorta (Legrand in 1833), 266

Commissurotomy, mitral, systemic embolism, 460

Congenital anomalies

common A-V canal, electro- and vectorcardiographic changes after surgery for, 643

common A-V orifice, 291

coronary arteries arising from pulmonary artery, 595

coronary arterial fistula

features of, leading to preoperative diagnosis, 588 into cardiac chamber, surgery for, 467

hyperplasia of ascending aorta with coronary hypertension, 746

in China, 367

in Equatorial African tribes, 432

in India, 380

in Italy, 341

in United States, 319

left aortic arch and right descending aorta with left superior vena cava, 132

left ventricular-right atrial canal, preoperative diagnosis and treatment of, 623

Marfan syndrome, unusual features of, 767

patent ductus arteriosus with ventricular septal defect, 475

pulmonary insufficiency confirmed by intracardiac phonocardiography, 282

pulmonary valvular insufficiency, 287

transposition of great vessels

arising from left ventricle, 601

without associated anomalies, corrected, 605

unilateral absence of pulmonary artery, 706

Congenital heart disease

classification of, based on pathologic complex, 733

Cor pulmonale

diagnosis and therapy of subacute, 38

in China, 367

in India, 380

in Philippine hospital admissions, causes of, 362

chronic, ECG and VCG alterations in, 20

in Italy, 341

paracoccidioidomycosis as cause of, 30

Coronary artery

anomalous origin of both from pulmonary artery, 595 fistulas of, surgery for, 467

Coronary heart disease

in China, and diet, 367

in Equatorial African tribes, 432

in Greece higher in urban than rural areas, 349

Coronary heart disease

in India, 380

in Japan, 371

intimal disease begins later in Kyushu than in Boston, 400

Coronary occlusion result of right heart catheterization, 110

Cushing's syndrome, surgical treatment of, 142

Customs as factor in cardiovascular disease in India, 380 Cyanosis in hepatic schistosomiasis and portal cirrhosis,

Deaths, Paul Hamilton Wood, 309

Defibrillation, electroshock by direct current preferable, in dogs, 223

Diet, influence of

496

on cardiovascular disease

in India, 380

in Italy, 341

in Japan, 371

on coronary heart disease

in China, 367

in tribes of Equatorial Africa, 432

**Digitalis** 

sensitivity to, not increased by surgical heart block, 248

toxicity

ectopic rhythm precipitated by isoproterenol in dogs, 242

treatment of, 298

Drugs

antimony dimercaptosuccinate less toxic than other antimony compounds, 829

chlorothiazide, effect in hypertension, 183

chlorothiazide in Stokes-Adams seizures with A-V block, 767

chlorthalidone, antihypertensive and diuretic, 570

dextran in dogs prevents microcirculatory aggregation of myocardial necrosis, 695

digitalis toxicity in dogs treated with isoproterenol, 242 d-thyroxine in hypercholesteremia, 198

heparin in single doses does not affect postprandial hyperlipemia, 815

isoproterenol

effects of, in dogs with digitalis cardiotoxicity, 242 provocative agent in hypertrophic subaortic stenosis,

metaraminol improves coronary arterial flow to terminate ventricular tachycardia, 479

methoxamine in subaortic stenosis, 489

mytatrienediol in hypercholesterolemia, 198

Drugs (continued)

nicotinic acid in hypercholesterolemia, 198

potassium salts, oral, reverses T wave, 673

quinidine action on molecular level, 252

40HM 6M quinoline, cardiovascular effects of, in dogs, 252

Rhythmol, results of treatment of arrhythmias, 856

THAM in quinidine cardiotoxicity, 562

triolein, tolerance of, and age, 193

triparanol in hypercholesterolemia, 198

Electric alternation of heart, physiologic derangement during, 155

Electrical axis, method of measuring, 453

Electrocardiogram

abnormalities and atrial flutter in case of myotonic dystrophy, 886

attachment to measure electrical axis, 453

A-V nodal escape beats, 217

balsa-lithium electrode eliminates need for jelly or paste, 846

during electroconvulsive therapy, 187

in chronic cor pulmonale, 20

in common A-V canal, 643

in interstitial lung disease, 14

in metastatic cardiac tumor, 882

in obstructive lung disease, 5

in parasystole induced by internal pacemaker in man, 535

in pectus excavatum, changes positional, 272

in WPW syndrome with bundle branch block, 657

 $T-V_1$  taller than  $T-V_6$ , early sign of myocardial disease,

Electroconvulsive therapy, electrocardiographic changes during, 187

Electroshock

alternating and direct current compared for defibrillation, 223

for ventricular fibrillation, 128

Embolism, postoperative, low in Japan, 371

Embolus, systemic, not prevented by commissurotomy, 460

Emphysema, hemodynamics in, during exercise, 46

Endomyocardial fibrosis, in Equatorial African tribes, 432

Enzymes, α-hydroxybutyric dehydrogenase activity in diagnosis of myocardial infarction, 525

Epidemiology

Symposium on, of heart disease, 315

Epidemiology of cardiovascular disease

atherosclerosis in Israel, 407

correlation of studies on, 312

hypertension, study of blood pressure among Negroes in Liberia, 424

in Africa, 432

in China, 367

in Greece among general hospital patients, 349

Epidemiology of cardiovascular disease (continued)

in India, 380

in Italy, mortality from, compared with U. S., United Kingdom, Japan, 341

in Japan, compared to other countries, 371

in Philippines among hospital patients, 362

in United States, trends, types, controls, 319

#### Errata

"Sinus Premature Systoles," 137

"Anomalous Origin of Both Coronary Arteries," 901

#### Exercise

effects on venous admixture in valvular heart disease, 52

influence of, on premature contractions, 209

#### Fasting

effect on fibrinolysis, 532

serum cholesterol increased by, 532

### Fatty acid

free, elevated by cigarette smoking, 204

patterns of, in myocardial infarction among diabetics in U. S. and East Africa, 390

Fibrillation, ventricular

closed chest massage and external defibrillation for,

during cardiac catheterization, 120

external electric countershock for, 128

pneumatic pump for external cardiac massage, 107

Fibrinolysis, effect of fasting on, 532

Fistula, congenital coronary, diagnosis, 588

Geography, factor in coronary heart disease, 400 Gumma of interventricular septum causes A-V block, 879

### Heart

atrial supply of septum shown dependent on A-V conduction, 447

physiology during electric alternation, 155

premature contractions and exercise, 209

Purkinje and trabecular muscle fiber cells show response differences in dogs, 688

# Heart block

A-V, digitalis for, in dogs, 248

caused by concealed A-V conduction, 138

intracardiac bipolar electrode for, 261

### Heart disease

changing mortality in types of, 900

congenital, indicator-dilution curves for diagnosis of,

congestive failure of, usually result of phlebosclerosis, 836

correlation of epidemiologic studies of, 315

Heart disease (continued)

symposium on epidemiology of, 315

valvular, venous admixture during exercise in, 52

Heart failure, paracoccidioidomycosis as cause of, 30

Heart murmur

diastolic, 282

tricuspid systolic, disappeared with nodal rhythm, 278

Heart rate, interim pacemaker used before surgery, 261

Heart surgery, evaluation

by antethoracic pancardiocentesis, 74

for direct percutaneous puncture, 80

#### Hemodynamics

cardiopulmonary, in emphysema, during exercise, 46 effects, systemic, of chlorothiazide, 183

Heparin, single doses ineffective in postprandial hyperlipemia, 815

#### Historical Milestones

Coarctation of the aorta (Legrand, 1833), 266

Examination of recruits in Civil War (Bartholow, 1863), 583

Forbes' translation of Laennec, 859

Galen on pulmonary blood flow, 738

α-Hydroxybutyric dehydrogenase activity in diagnosis of myocardial infarction, 525

Hypercholesterolemia, therapeutic agents for, 198

Hyperkinesis, essential circulatory, diagnosis, therapy and prognosis of, 785

Hyperlipemia, postprandial, not altered by single doses of heparin, 815

### Hypertension

chlorthalidone effective, long-acting for, 570

coronary, cause of hypoplasia of ascending aorta, 746

effects of chlorothiazide in, 183

essential, incidence of among men, in relation to blood pressure, 10-15 year follow-up study, 416

in China, 367

in Equatorial African tribes, 432

in India, 380

in Italy higher in urban than rural areas, 349

in Japan, 371

in Negroes in U. S. and in Liberia, study of blood pressure, 424

in Philippine hospital admissions, 362

in United States, 319

portal, cyanotic syndrome of, due to hepatosplenic schistosomiasis and portal cirrhosis, 496

pulmonary, from unilateral absence of pulmonary artery, 706

Hypothermia, use in cardiac disease, 149

Hypoxemia, progressive, and coronary blood flow in hypothyroid dog, 840

Indicator-dilution curves, technic and interpretation in congenital heart disease, 83

Indocyanine green, use in diagnosis of congenital heart disease, 83

Infarction, myocardial, free fatty acid greater than normal after smoking in patients with healed, 204

- Interstitial disease of lungs, ECG changes related to pulmonary function in, 14
- Isovolumetric contraction time and tension, measurement of pre-ejection ventricular systole, 800

Kershan disease in China, study of, 367

- Laennec, Forbes' translation of, 859
- Left ventricular-right atrial canal, electro- and radiographic features for preoperative diagnosis and treatment of, 623
- Lipids, serum, reduction by hypercholesterolemic agents,
- Lung disease, obstructive, ECG in, 5
- Marfan syndrome, involvement of skeletal and cardiovascular system, 767
- Microcirculation, abnormalities of, in dogs during myocardial necrosis prevented by dextran, 695
- Mitral disease
  - left heart catheterization as measure of, 57
- ventriculography as measure of, 57
- Mitral regurgitation
  - left atrial sampling to estimate, 62
  - catheterization to measure degree of, 57
- Mitral stenosis
- catheterization of left heart to differentiate from regurgitation, 57
- dye injection studies to measure, 62
- measure of, by simultaneous intracardiac phonocardiography and electrocardiography, 95
- pulmonary vascular disease determines disability shown by catheterization state, 773
- surgical treatment of, 1
- Mortality
  - changing in types of heart disease, 900
  - studies of, from cardiovascular disease, see Epidemi-
- Muscular dystrophy, progressive, involving heart, hemodynamic data of a case, 890
- Myocardial disease, T-V1 taller than T-V6 as early sign of, 764
- Myocardial infarction

New instrumentation

open chest resuscitation for, 124

nents of murmurs, 852

- patients show high levels of fat in blood, 807
- Myotonic dystrophy, atrial flutter in, 886
  - attachment permits recording high frequency compo-

- New instrumentation (continued)
  - axis indicator to measure electrical axis, 453
  - balsa-lithium electrode eliminates need for jelly or paste in electrocardiography, 846
  - intracardiac bipolar electrode for heart block, 261
  - intracardiac pacemaker, 298
  - method for recording intracellular currents of single cardiac cells, 688
  - platinum hydrogen electrode to detect left-to-rightshunts, 70
  - pump, portable pneumatic, for external cardiac massage, 101
  - rectified phonocardiography, 852
- Pancardiocentesis, antethoracic, to measure pressure and flows in heart, 74
- Paracoccidioidomycosis. cause of chronic cor pulmonale,
- Pectus excavatum, hemodynamic and electrocardiographic changes, 272
- Percutaneous puncture for evaluation of heart, aorta and pulmonary artery for surgery, 80
- Phlebosclerosis of pulmonary veins, usually associated with congestive failure, 836
- Phonocardiogram, in pulmonary stenosis 634
  - rectified, permits recording of high frequencies of murmurs, 852
- intracardiac, simultaneous with ECG for study of mitral stenosis, 91
- Pistol shot sounds, venous, systolic in origin in triscuspid insufficiency, 667
- Postgraduate course
  - cardiology, physiology and biochemistry, Dec. 4-6,
- President's Column
  - Fourth World Congress of Cardiology, 308
  - Obligation of College Membership, 618
- Paths to Research in Cardiology, 903
- Taking Stock, 145
- Pulmonary artery
  - idiopathic dilatation of with pulmonary insufficiency,
  - stenosis of, anatomic types in relation to hemodynamic changes, 634
  - transposition with aorta, both arising from left ventricle, 601
  - unilateral absence of, a review, 706
- Pulmonary insufficiency, with dilatation of pulmonary artery, diagnosis confirmed by phonocardiography, 282
- Pulmonary valvular insufficiency, asymptomatic, hemodynamic changes in, 287
- O uinidine cardiotoxicity in dogs corrected by THAM,

# Race factor

in cardiovascular disease

in Equatorial Africans, 432

in India, 380

in Philippine natives and Chinese compared, 367

in myocardial infarction in diabetics of U. S. and East Africa, 390

#### Regurgitation

left atrial sampling to estimate, 62

mitral, catheterization to measure, 57

traumatic aortic, diagnosis and treatment, 752

Religion. factor in cardiovascular disease in India, 380 Reviews

amyloidosis, cardiac, 460

congenital heart disease, pathologic classification, 733 congenital coronary artery fistula, 66 reported cases

unilateral absence of pulmonary artery, 706

#### Rheumatic heart disease

in China, 367

in Equatorial African tribes, 432

in Greece, epidemiology of, 349

in India, 380

in Italy, 341

in Philippines hospital patients, 367

in United States, 319

Rhythm, nodal

A-V, after cooling or clamping sinus node in dogs, 235 induced by norepinephrine, corrects a tricuspid murmur, 278

Rhythmol, results of treatment, 856

Sarcoidosis cause of fatal ventricular tachycardia, 864 Sarcoma, cardiac. successful removal of, 871

Schistosomiasis

antimony treatment of, in China, cause of cardiac arrhythmias, 367

cardiotoxic effects of antimony dimercaptosuccinate treatment, 829

pulmonary, cause of cor pulmonale in Philippines, 362 Shunts, left-to-right, detected by triple-platinum hydrogen electrode, 70

#### Stenosis

mitral, surgical treatment of, 1

pulmonary, anatomic types of, in relation to hemodynamic changes, 634

Steroids effective in patients with subacute bacterial endocarditis sensitive to penicillin, 575

Stokes-Adams seizures with A-V block prevented with chlorothiazide, 767

Subacute bacterial endocarditis, steroids useful in patients allergic to penicillin, 575

Subaortic stenosis, hypertrophic, hemodynamic changes induced by isoproterenol and methoxamine, 489

#### Surgery

extracorporeal circulation in, 149

Taussig-Bing complex corrected by, 166

Sydenham's chorea in India, 380

Symposium on the epidemiology of heart disease, 315

Syncope, micturition, 615

Syphilitic heart disease

in Equatorial African tribes, 432

in India, 385

T wave changes, functional and organic, differentiated by oral potassium salts, 673

Tachycardia, ventricular, fatal, caused by cardiac sarcoidosis, 864

Taussig-Bing complex, physiologic studies of, 166

Transposition of great vessels

with associated anomalies, 601

without associated anomalies, corrected, 605

Tricuspid insufficiency, venous pistol shots in, systolic in origin, 667

Triglycerides, reduction by hypercholesterolemic agents, 198

Triolein, tolerance of, and age, 193

Tumor, metastatic cardiac. electrocardiographic evidence of, 882

# Valvular lesions

in India, 380

multiple, antethoracic pancardiocentesis for diagnosis of, 74

traumatic, of aortic valve, case report, 752

#### Vectorcardiogram

in chronic cor pulmonale, 20

in common A-V canal, 643

in WPW syndrome with bundle branch block, 650, 657 normal, quantitative characteristics of QRS loop by Frank lead system, 514

normal TsÊ loop, spatial orientation of, 507

Vena cava, left superior, with left aortic arch and right descending aorta, 132

## Ventricle

activation of left, experimental, after ventriculotomy and left bundle branch block, 101

pre-excitation zones in right and left, in WPW syndrome, 650

septal defect of, with silent patent ductus arteriosus, 475

Ventricular hypertrophy, right

electrocardiographic evidence of, related to pulmonary function, 5, 14

relation to cor pulmonale, 20

Ventricular parasystole in normal child, electrocardiographic features of, 302

Ventricular systole

isometric contraction time in left bundle branch block, 792

pre-ejection phase of, measured by isovolumetric contraction time and tension period, 800

Ventriculography, measure of degree of mitral regurgitation by, 57

- Ventriculotomy, effect of, on activation of left ventricle, 101
- WPW syndrome (continued)
  pre-excitation zones in right and left ventricles, shown
  by experimental study in man, 650
- Wenckebach phenomenon with long P-R interval, 458 World Congress of Cardiology announcement, 308 WPW syndrome bundle branch block in, 657
- Young Investigators' Awards conditions announced for 1963, 313, 465, 621 deadline for 1963 extended, 770 winners announced for 1962, 145

